William Mayo, of Lower Clapton, and John Warmington, of Wandsworth-road, gent., for improvements in the means of, and apparatus for manufacturing gaseous liquors, and for filling bottles and other vessels used for holding the same, and retaining the contents therein, and emptying the same when required.—Sealed 12th July. Communication.

Anthony Bernhard Baron Von Rathen, of Birmingham, in the county of Warwick, engineer, for improvements in fire-grates, and parts connected therewith, for the better consumption of fuel and generation of heat; and improvements in the method and apparatus for the absorption and utilization of heat.—Sealed 12th July.

SCOTCH PATENTS.

To William Newton, of the Office for Patents, 66, Chancery-lane, London, civil engineer, for certain improvements in the preperation of paper, designed for bank notes, government documents, bills, cheques, deeds, and other purposes, wherein protection and safety from forgeries or counterfeits are required.—Sealed June 23. Communication.

William Needham, of Birmingham, gun-smith, for improvements in fire-arms.—Sealed July 4.

Robert Smart, of Commercial-road, Bristol, ship-owner, for improvements in paddle-wheels.—Sealed July 4.

(To be continued.)

Miscellanea.

The Fire-proof Powder Magazine.—A very interesting experiment took place recently at Paine's Wharf, Cannon-row, Westminster, in the presence of several distinguished naval and military officers, and other scientific gentlemen, for the purpose of testing the capabilities of a magazine to contain powder in ships of war, recently patented by Mr. J. A. Holdsworth, of Dartmouth, as being impervious to fire, though subjected on all sides to the greatest possible degree of heat. A model of a magazine, about nine feet square, was placed on the wharf, within a few feet of the water's edge. This model is formed of a double set of thin iron plates, rivetted together at about two inches and a half asunder, the hollow being filled with water supplied from a vat placed somewhat above the level of the magazine, and entering it through a pipe inserted in the lower part of the model. A channel of communication exists through every side as well as the top and bottom, and from the upper surface a second pipe conveys the stream of water back to the vat from which it is supplied. The door of the magazine is hung on hinges, made hollow, and guarded from leaking by stuffing-boxes, so that the water flows into the door through one hinge, and out through the other. This appears to be the principle of its construction, and it is alleged that it will be as impervious to fire as an iron kettle containing water. The more violently the fire impinges against its side the more rapidly the water within the hollow circulates, but it cannot flow more rapidly out of the upper pipe, through the action of the fire, than it will be refilled below if the supply of water be properly arranged; and as long as the hollows contain water, the metal plates cannot become red-hot. The patentee having explained this much of his invention, placed a quantity of combustible matter within the model, over which the gunpowder was laid on a sheet of paper. A regulating thermometer having been placed inside, the door was closed and a stack of dried timber deposited on every side of the model, which, on being ignited, burnt with the greatest rapidity. The fire was kept up more than half an hour, and the water rose to very nearly boiling heat, continually passing in a stream through the upper pipe into the reservoir, containing cold water. On the door being opened, the combustible matters and powder were found to be perfectly uninjured, and the highest point to which the mercury had risen within the model was marked at 100 degrees of Fahrenheit. Great satisfaction was expressed by the gentlemen present at the successful result of the trial, and the inventor explained to those present that the position of the pipes in the side of a ship of war might be varied in any way to suit the convenience of the ship, care being taken that each was below the surface of the sea, or so arranged that the top of the magazine, when exposed to a fire, might be always filled with water. A somewhat similar principle has been applied to the stoker's-room in the Victoria and Albert royal steam yacht, where the bulkheads have been constructed of two plates of sheet iron, instead of wood faced with iron, a stream of water constantly flowing between, by which means the temperature of the engine-room is kept perfectly cool. By this contrivance it is anticipated that great advantage will arise to war steamers on the tropical stations, where the excessive heat of this part of the vessel is a fruitful source of sickness among that class of men.

The Queen's Summer-house in Buckingham-gardens is nearly completed, and the frescoes produced by Maclise, Ross, Uwins, Stanfield, and Landseer, to whom her Majesty and the Prince intrusted the adornment of this enviable spot, are spoken of by the chosen few who have been fortunate enough to see them as being more than successful. The subject chosen was *Comus*, and the illustrations are, though of a small size, full of subject and interest. It is said that Landseer completed his between sunrise and sunset; Mr. Eastlake's is still untouched: he has been so occupied with the Commission that he has not had leisure, we have heard, to do more than sketch his subject. To paint the moral of the tale is his privilege, and it is of all, the portion which he is best calculated to illustrate. Her Majesty and the Prince have taken the greatest possible interest in the progress of the adornment, visiting it themselves repeatedly, without state or ceremony. We hope the example they have shewn in appropriating this branch of art to such a purpose will be followed by those of our nobility whose princely fortunes enable them to joy in the pure and high art which such men can present to them.

Chapel of Sablonville.—The plan is that of a Greek cross, the upper end occupied by the altar, dedicated to the Virgin. In one of the sides of the cross is the chapel dedicated to St. Ferdinand, and in the other a statue of the Duke of Orleans, in the dress of a general officer, and in the position in which he happened to be at the moment of his death. Above the head of this figure is placed an angel, kneeling as if in prayer, sculptured by the Princess Mary. The reclining figure is by M. Triquetti, after a design from the pencil of M. Ary Scheffer. On the principal front of the sarcophagus is represented France in the form of a genius in an attitude of grief, bewailing the loss which she has sustained. The French flag lies at her feet. On the walls of the chapel are the prince's cipher. There are ten windows in the building, all adorned with stained glass, representing fourteen saints, seven at each side of the grand altar. The three circular arches of the roof are ornamented with statues of the three Apostolic virtues; Faith being placed over the entrance, Charity at the side of the Chapel of St. Ferdinand, and Hope in the part of the cross occupied by the figure of the dying prince. The chapel, in the Byzantine style, is surmounted by a stone cross. The compositions of the windows are by M. Ingrés. In front of the chapel a residence has been prepared for the officiating ecclesiastic.

Lycian Antiquities.—Mr. Fellows is now on his way to Malta, whence the expedition will start in October. It will consist of one hundred persons, engineers, carpenters, masons, &c., besides an architect and artist (under Mr. Fellows's control, who acts gratuitously). A government steamer, the Medea, whose officers, having been employed before, have volunteered again, is placed at his command. They will arrive during the healthy season, and not, as was the case when the Syrian marbles were fetched away, exactly at the time when the climate became intolerable, and even the natives had deserted the banks of the Xanthus, a mistake which occurred in spite of Mr. Fellows's express warnings, that they should be out of the country before the month of June. Lord Aberdeen and Sir Stratford Canning have meanwhile diplomatically made all the arrangements to facilitate proceedings. The firman given to Mr. Fellows before is still in force; the local pachas are prepared to render every assistance; timber is felled in readiness to pack up all that may be acquired; and it is probable that every thing worth having—on the Xanthus, at least—besides what may be discovered elsewhere, will be added to the stores in the British Museum.

A large quarry has been accidentally discovered at Cirencester, close to the canal wharf, and in that part of the suburbs called Querns Hill, where the soil is so picturesquely uneven from old quarry work. The name of Querns signifies quarryings, and this spot lies within the compass of the ancient Roman walls of Corinium. The quarry laid open is evidently very ancient. Unlike our present quarries, it is not worked from an exposed surface down to a pit, but extends under the plane surface horizontally. On entering, you diverge into several cells or chambers, forming passages or tunnels, the roof being supported by shafts of the original rock, of various heights, left unhewn. The principal coal mines in the Forest of Dean are worked in the same way into passages, and the ancient Phœnician iron mines which remain there, and can be traversed to a great extent, are similarly formed. The ancient title of this suburban spot (the Querns)—its contiguity to the city walls of this Roman station—and the manner of working the quarry so closely resembling the Phœnician mines, offer a reasonable ground for conjecturing (till better advised) that this mine was prior to the erection of the church, as has been guessed, and a Roman excavation.—*From a Correspondent.*

Cheltenham in the Olden Time.—A very curious drawing has just been brought to light, representing a view of Cheltenham nearly a century ago. The drawing is in body colour, executed by Robins, in 1748, evidently with great accuracy and minuteness. The spectator is supposed to stand on the elevated point of the Bays Hill Estate—the old church, the pump-room, and avenue of trees—mere sappling elms—in the foreground the Cotteswold Hills rising in the distance, and, on the whole, presents a singular contrast to Cheltenham in its present rich and splendid appearance. An inscription under the drawing tells the tale of the discovery of the waters, about thirty years before the painting was executed, and the gratitude of "Gabriel Davies, a mason, who, receiving a cure from taking them, sunk a well and laid in stones, which was afterwards palliaded round and walled in; and that Capt. Henry Skillicorne (ancestor of the present Mr. Skillicorne) made a handsome walk, and additional buildings;" which are plainly shewn in the drawing, by a double row of young trees, which now, in their green old age, presents so rich and conspicuous a feature from the same point of view. This very interesting relic of ancient Cheltenham ought to be carefully deposited in the museum of the Philosophical Institution, as one of the evidences of the great benefit society has reaped from the discovery of the health-inspiring waters of our mineral springs; contrasting, as it does, Cheltenham as an insignificant village, with its present palmy and high estate as the Queen of Watering Places. The drawing is in the possession of Mr. Alder, Promenade.—*Cheltenham Examiner.*

"Let no man that intendeth to build settle his fancie upon a draught of the worke in paper, how exactly soever measured, or neately set off in perspective; and much lesse upon a bare plant thereof, as they call the schiographia or ground lines, without a modell or type of the whole structure, and of every parcell and partition in pasteboard or wood. Next, that the said modell be as plaine as may be, without colours or other beautifying, lest the pleasure of the eye pre-occupate the judgement; which advise omited by the Italian architects, I finde in Phillipe de l'Orme, and therefore (though France bee not the theater of best buildings) it did merit some mention of his name. Lastly, the bigger that this type be, it is still the better, not that I will perswade a man to such an enormity, as that modell made by Antonio Labaco, of Saint Peter's Church in Rome, containing 22 foot in length, 16 in breadth, and 13 in height, and costing 4,184 crownes; the price, in truth, of a reasonable chappell. Yet in a fabrique of some forty or fifty thousand pounds charge, I wish thirty pounds at least layd out before hand in an exact modell; for a little misery in the premises, may easily breed some absurdity of greater charge in the conclusion."—*Sir Henry Wootton's Elements of Architecture, Ed.* 1624, *pp.* 64, 66.

The cost of maintaining the public parks of the metropolis is £39,478 per annum.

A plan has been proposed by Mr. Hudson, of York, Chairman of the North Midland Railway, to merge the North Midland, the Birmingham and Derby, and the Midland Counties Railway, under one management, and thereby to effect a great saving of expenses. A committee has been appointed to consider and report on the proposition.

We are apt to inquire how much a man has done; but with how much virtue he has done it, is not so diligently considered.

Some one remarking to Dr. Johnson on the inequality or inferiority of Milton's sonnets, was silenced in this manner: "Milton was a genius that would carve a Colossus from a rock, though he could not cut beads from cherry-stones."

On the Harrow Road there is a memento in brick and mortar, connected with a story of singular interest—two houses stand together, the one spruce and prim in its comparative newness, the other tottering with age and dilapidation; their juxtaposition of the strangest; and this is the tale that is told of and concerning them. The proprietor had secured the affections and was about to be united to the person of the damsel of his choice, intending to carry her as bride into the venerated home of his ancestors; this, however, the lady resented, and vowed to retain her hand unless a domicile more in accordance with her taste were provided by her aspirant lord and master. All obedience in this respect, the good man built by the side of his ancient home, a fairer tenement, according to modern rules and proportions, upon which he challenged his betrothed to the fulfilment of her promise; but no! the old house must be levelled, it was odious in her eyes. This was more than compliance self could comply with—at least so thought the hitherto compliant suitor; the bargain was off, and there stands the record of these mutually obstinate sticklers for mutual absolute concessions.

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